

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Specification Amendments:

The specification has been amended to correct a minor problem in Equation (9) on page 18, as well as to correct a paragraph on page 18. No new matter has been added.

Status of Claims:

Claims 6-9, 11, 13, and 31 are currently being canceled.

Claims 1, 12, 18, 27 and 29-30 are currently being amended.

Claims 32-40 are currently being added.

This amendment adds, cancels and amends claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-5, 10, 12, 14-27 and 29-30 and 32-40 are now pending in this application.

Claims Rejections - 35 USC § 112, Second Paragraph:

In the Office Action, claims 1, 4-6, and 12 were objected to because the phrase "such as (that)" renders the claim indefinite. In reply, claims 1, 4-6 and 12 have been amended to comply with the requirements set forth under 35 U.S.C. 112, second paragraph.

Claims Rejection - 35 USC § 102:

In the Office Action, claims 1, 4-6, 11, 12, 18, 25-28, and 30 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,115,505 to Hashima. This rejection is traversed with respect to the presently pending claims under rejection, for at least the reasons given below.

Hashima fails to disclose or suggest a predetermined form pattern including one of a convex pattern and a concave pattern. The use of such a function pattern model allows pattern matching using a normalized correlation method, with less processing time and the like.

In this connection, please note that Figure 5 of Hashima is merely a histogram of a reference image, wherein the reference image is divided into the object area and the background area. Therefore, the pattern depicted in Figure 5 of Hashima is much different from that recited in claim 1. Moreover, for the same reason, the "low" and "high" features shown in Figure 5 are much different from those recited in claim 1.

Therefore, it is believed that claims 1, 4-6, 11, 12, 18, 25-28, and 30, as amended, are not anticipated by Hashima.

Claims Rejection - 35 USC § 103:

In the Office Action, claims 7-9, 13, and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hashima in view of U.S. Patent No. 5,060,282 to Molley. Due to the cancellation of claims 7-9, 13, and due to the amendment to claim 29 so that it now depends from claim 36, this rejection has been rendered moot.

New Claims:

New claims 32-40 have been added, which recite additional features of the present invention that are believed to patentably distinguish over the cited art of record.

In particular, please note that new claim 36 and new claim 37 are directed to another way for solving a problem mentioned in the present application: calculating a normalized correlation coefficient with the background of the reference image excluded. With such exclusion, pattern matching can be carried out using a normalized correlation method, with lesser processing time and the like. Neither Hashima nor Molley teaches or suggests such features as recited in new claims 36 and 37.

Dependent claims 38 and 39 recite additional features of this other way for performing pattern matching.

New claim 40 recites additional features of the calculating step (of its base claim 18), whereby those features are believed to provide a separate basis for patentability of that claim.

Conclusion:

Since there are no other objections or rejections raised in the Office Action that have not been addressed in this Amendment and Reply, Applicant believes that the present application is now in condition for allowance, and an early indication of allowance is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date November 2, 2004

FOLEY & LARDNER LLP
Washington Harbour
3000 K Street, N.W., Suite 500
Washington, D.C. 20007-5143
Telephone: (202) 672-5300
Facsimile: (202) 672-5399

By Phillip J. Articola

Richard L. Schwaab
Registration No. 25,479

Phillip J. Articola
Registration No. 38,819